

NULHATEE RAILWAY-INDIA'S FIRST LIGHT RAILWAY

-P.K. Mishra

"Nothing in his opinion that had ever been carried out in India would have such an important effect on the prosperity of the country." –Lord Elgin

Synopsis: Nulhatee Railway, a branch line of 27 miles of Railway connecting EIR network at Nulhatee (145 miles from Calcutta) with Azimganj (Murshidabad), the old capital of Bengal, was constructed by Indian Branch Railway Company in 1863.

Mr. J.E. Wilson, former Engineer of EIR, who had supervised construction of Rajmahal line, the first section of Bengal division, after completing the section in 1861 left the service of EIR and envisaged a subsidiary network of light and inexpensive branch lines linking significant trade and commercial centres to important stations on the main trunk lines of EIR, as he felt that the great trunk lines in India, without subsidiary lines, would not fulfil the expectations originally formed of them with respect to traffic.

The distinctive features of Branch Railways were to be light rails, light rolling stock, the engines with fuel and water, not weighing more than 14 or 15 tons, and the rate of travelling not to exceed 15 to 16 miles per hour. The Branch lines would not require great speed, and were only intended for improved communication, as feeders to the great trunk lines

This scheme, of connecting main line network with inexpensive branch lines, with a cap on their construction cost, was agreed by Colonel Yule, Secretary to the Government of India in the Public Works Department and approved by Lord Canning, Viceroy of India, in August, 1861.

It was a unique scheme- first Railway in India to be constructed without Government Guarantee, at extremely low cost, to usher Railway revolution in feeder and subsidiary routes, which were not covered by existing Guaranteed Railway Companies due to their high cost of construction, rendering them financially unviable.

Lord Canning had the very highest opinion of Mr. Wilson; in fact he was the right man in the right place. Lord Canning in course of inspection of EIR lines in September 1857, had arrived at a large river called the More, in Mr. Wilson's district. The piers of a bridge of 24 arches, having 60 feet span each, were just beginning to show themselves in the river above the water. Lord Canning asked Mr. Wilson if he should have the bridge finished before the periodical Monsoon rains in June in next nine months.

Mr. Wilson replied that he expected to have a train over the bridge in next three months, by the end of December. Lord Canning said nothing but exchanged incredulous looks with his staff, showing that he considered it impossible that the bridge could be arched over by the time mentioned.

By the 30th of December Lord Canning had reached Lahore in the Punjab and on that day Mr. Wilson telegraphed to Mr. Turnbull, the chief engineer, to tell Lord Canning that the first train had passed over the bridge on the More river.

On this being communicated to Lord Canning, he immediately wrote to Mr. Wilson with his own hand a letter highly commending his surprising energy in having completed a work of such magnitude in so inconceivably short a time, and at the same time apologising to Mr. Wilson for the signs of incredulity which he had exhibited while passing the bridge in September.

Mr. Wilson, with the help of The Marquis of Tweeddale, K.T., C.B., late Governor and Commander-in-Chief of the Madras Presidency, who would later join as president of the company and his other influential friends, formed the Indian Branch Railway Company on 30th April 1862 to carry out his scheme within 12 months from the date of the formation of the Company. The company would construct Nulhatee line, the gauge being only four feet- a first experiment in a system of railway construction to revolutionize Indian transit.

On 5th February 1863, the Governor General Lord Elgin on his way to open newly commissioned direct line to Benares had inspected the Nulhatee lines and reviewed its progress. Mr. Wilson in a despatch to board of directors would state:

"The Governor-General has visited this line and expresses himself very highly pleased and satisfied with everything, and assured me of the great interest he took in our success, as nothing in his opinion that had ever been carried out in India would have such an important effect on the prosperity of the country."

Admitting the sad experience of extravagance, delay, speculation and public apathy caused by the guarantee system; Lord Elgin announced that he was prepared to aid every Railway project he approved of by a subvention, if it adhered to the uniform railway gauge of five and a half feet, and did not exceed in cost of construction four thousand pounds a mile.

On the 11th of November 1863 the first line of the Indian Branch Railway, from Nulhatee to Jeeagunge, was opened by Hon. Cecil Beadon, the Governor of Bengal with much formality accompanied by a party of sixty European gentlemen including Mr. Montresor, the Commissioner of Burdwan, Mr. Schalch, C.S., the Mayor of Calcutta. Captain Williams represented the Public Works Department of the Government of India, Robert Roberts (Chief Clerk and Accountant i.e. chief auditor of EIR) and J.C. Batchelor (Traffic Manager Howrah) from the East Indian Railway and Mr. F. Prestage the Eastern Bengal Railway. Governor special left Howrah at 8.10 A.M., and reached Nulhatee at 1.30, after a run, excluding stoppages, at the average rate of forty five miles an hour.

The inaugural special train consisted of one of the new light engines, designed by Mr. Wilson and constructed in Paris by Anjubault, a large third-class carriage fitted for 200 passengers, but finely fitted up as a saloon, and an open carriage resembling the American cars, made its inaugural journey *to Azimungge, on the bank of river Bhaguruttee.*

One of the engines, renamed later as “Ramgotty” after the Indian manager of Nulhatee Provincial State Railway, would undergo gauge conversion after the line was taken over by EIR and converted into BG. It would luckily be subsequently rescued and displayed in National Rail Museum

The train, running at the rate of twenty-six miles an hour, though the railway was constructed for a speed of twelve miles, reached station Bokhara half-way. At two o'clock a party of sixty gentlemen sat down to tiffin in the Bhokara station, which was constructed of corrugated iron, nicely painted.

Lieutenant Governor pronounced the Railway a success, and contrasted its cost of £1,900 a mile, excluding the road, with the £19,000 a mile expended on the heavy line of the East India Railway; he *looked forward to the time when the great trunk system of railways would be fed by numerous branch lines like the present. The toast was received with cheers, and Mr. Wilson briefly replied. All those who were present at the opening expressed their gratification at the success of what was previously considered a doubtful experiment.*

The line was opened to the public on 21st December 1863 after official inspection by Public Works Department, at the same rates as prevailed on the East Indian line.

In 1867, the Company opened the 5 feet 6 inch wide Broad gauge Kanpur-Lucknow branch line, bringing Lucknow in the Railway map of India. It would later connect Lucknow with Hardoi, Barabanki & Benares and Moradabad to Chandausi & Bareilly.

“The branch from Lucknow to Cawnpore was commenced in January 1864 and line was opened for public traffic on 23rd April, 1867. Like the Nalhati and Azimganj lines, this branch was begun under subsidy by the Indian Branch Railway Company, but a guarantee was subsequently granted.”- **Administration report 1891-92**

“Instead of £12,000 a mile, the lowest average price of the guaranteed lines, these light railways will be laid down at £3,500 a mile, of which the State will contribute £1,000 in some shape or other as a subvention.”—Herapath journal 1863

Contract between the Secretary of State in Council and the Indian Branch Railway Company dated 2nd August 1867 was signed empowering the company to construct 672 miles of Railway in Oude and Rohilcund. The company after signing the contract changed its name to Oude and Rohilcund Railway Company.

Nulhatee line was purchased by the Government at £30,000 on the 1st April 1872 and it became Nulhatee State Railway. The management of the Railway was entrusted to Baboo Ramgotty Mookerjee.

“In October last Baboo Ramgotty Mookerjee, Local Manager of the Nulhattee Line, was, with the approval of the Government of India, appointed Manager of both these State Railways (Calcutta and South-Eastern and Nulhattee State), and he has conducted his new duties entirely to my satisfaction.”—Progress and Administration Report East Indian Railway 1873

The track would be later converted to Broad-Gauge on April 1st 1892, formally becoming part of the East Indian Railway's Sahibganj Loop.

East Indian Railway operated on the southern side of the Ganges, the Oudh and Rohilkhand Railway operated in the plains of Northern India, mostly north of the river. The Oudh and Rohilkhand Railway would also build the Dufferin Bridge on river Ganga with Frederick Thomas Granville Walton as Chief Engineer, connecting East Indian Railway lines at Mughalsarai.

"In 1880 the company was relieved from its obligation under the original contract to make a line of railway from Buxar to Akbarpur and it was agreed that in lieu thereof the company should construct a bridge over the Ganges at Benares and should form a junction with the East Indian railway at Moghal Sarai. The work was started in 1881 and the Dufferin bridge over the Ganges was opened for traffic on the 1st October 1887".

--Administration report 1891-92

The Oudh and Rohilkhand Railway would be later merged into the East Indian Railway on 1st July 1925 culminating a journey that started from Nulhatee six decades earlier.

The experiment would establish that it was possible to construct low -cost feeder lines network, which would tap the hinterland and bring traffic on main lines, and these lines can be operationally viable. Nulhatee line experiment would spawn various State Railways all over the country with MG network. The experiment would also prove that private lines constructed cheaply without guarantee are not able to arrange resources and undertake capital expansion including major repairs and would require periodical capital infusion.

History:

Indian Branch Railway Company was formed on 30th April 1862, with Limited Liability under the Joint Stock Companies Acts, to connect EIR network at Nulhatee (145 miles from Calcutta) with Murshidabad, old capital of Bengal. It was envisaged to be the subsidiary network of branch lines linking significant trade and commercial centres to important stations on the main trunk lines (the East Indian Railway).

This Company was formed for the purpose of carrying out on a large scale the principle (which had been sanctioned by the Government of India) of laying down light inexpensive rails on the ordinary roads of the country, to be worked by light locomotives and rolling stock, the total cost of which to not exceed £2,000 per mile.

The use of the public metalled road from Nulhatee, a station on the East Indian Railway main line, to Moorshedabad, a city of 300,000 inhabitants, was conceded by the Government of India to this Company for 99 years, together with all land for stations and sidings, free of cost, upon which was the first instance to carry this principle into effect.

Mr. Wilson, the Chief Engineer and manager of the company in India, had the credit of being the first to propose to the Government of India the system of light

railways. Mr. Wilson was employed as District Engineer Beerbhoom, Soorol on the East Indian Railway, and had the construction of the section of that line confided to him, between Burdwan and Rajmahal, on which Nulhatee was situated.

After he had completed and opened this section in 1861, he left the service of EIR, but feeling that the trunk lines of Railway without subsidiary lines would be comparatively useless, he devised a scheme for accommodating the country with light, inexpensive Railways; the distinctive features of which were light rails, light rolling stock, the engines with fuel and water, not weighing more than 14 or 15 tons, and the rate of travelling not to exceed 16 to 16 miles per hour. No doubt those engines could travel at the rate of 30 or 40 miles an hour, but that would involve considerable expense and increase the cost of construction.

“It was speed that killed on the railway as on the common road. Their undertaking did not require great speed, but would accomplish a speed far superior to any existing on the roads of India. It was a system of easy construction and moderate cost.”

This scheme, after being fully discussed and matured with Colonel Yule, then Secretary to the Government of India in the Public Works Department was submitted to Lord Canning, then Viceroy of India, in August, 1861. Lord Canning had known Mr. Wilson now for upwards of twelve years, and had the very highest opinion of him in every respect; in fact he was the right man in the right place.

In the end of September, 1857, as Lord Canning accompanied by his staff, was proceeding along the line of the East Indian Railway inspecting it in his course he arrived at a large river called the More, in Mr. Wilson's district. The piers of a bridge of 24 arches, having 60 feet span each, were just beginning to show themselves in the river above the water. Lord Canning asked Mr. Wilson (who, as the engineer of the division, was accompanying him) if he should have the bridge finished before the periodical rains in the following June nine months.

Mr. Wilson replied that he expected to have a train over the bridge by the end of December, three months from that time. Lord Canning said nothing but exchanged incredulous looks with his staff, showing that he considered it impossible that the bridge could be arched over by the time mentioned. By the 30th of December Lord Canning had reached Lahore in the Punjab and on that day Mr. Wilson telegraphed to Mr. Turnbull, the chief engineer, to tell Lord Canning that the first train had passed over the bridge on the More river.

On this being communicated to Lord Canning, he immediately wrote to Mr. Wilson with his own hand a letter highly commending his surprising energy in having completed a work of such magnitude in so inconceivably short a time, and at the same time apologising to Mr. Wilson for the signs of incredulity which he had exhibited while passing the bridge in September.

Lord Canning at once saw the importance of Mr. Wilson's scheme in developing the resources of India, and immediately signified his approval in the letter of the 12th December, 1862, written by Colonel Yule, which was published with the prospectus. It was a scheme that would free the Government in committing the

guaranteed return on capital and dramatically reduce the cost of constructing Railways in India.

Lord Elgin during the opening of Benares – Howrah section had said on 7th February 1863 at Benares that one should not look to an indefinite extension of a system of Government guarantees for the accomplishment of this object. In the first place, it would be wholly unjustifiable for any one object, however important, to place such a strain upon our finances as this policy would involve. In the second place, however justifiable and necessary a system of Government guarantees may be in certain circumstances, it is essentially an expensive one, because, by securing to shareholders a minimum rate on their capital, it weakens in them the motives to economy, and because, by dividing the expenditure between Government and railway officials, it diminishes in the latter the sense of responsibility.

The guarantee system has done its duty in giving India trunk railways, and costly as it has been at a time when rebellion dried up our resources we do not grumble; but to continue it would be to go back to the terrestrial providence stage. Government is now prepared in a spirit of wise liberality, which does it infinite credit, to encourage all good private projects by assisting them either with land, or a roadway for light rails, or a bonus of so much per mile opened, or a subvention of so much per mile towards working expenses till the profits reach five per cent.

The credit of raising this question and leading to so wise an arrangement is certainly due to Mr. Wilson, C.E.-- PUBLIC WORKS AND PRIVATE CAPITAL, Friend of India 1863

Mr. Wilson realising that high cost of construction of trunk Railways was holding back construction of feeder routes suggested the scheme of light branch inexpensive Railway without any guarantee on capital which was readily accepted by the government.

“The liberal and enlightened policy of the Government of India, in thus aiding, without guaranteeing, private capital, added to the facilities which will be given by the Bill now before the Legislature, for encouraging public works under taken by private persons, should attract to India in the next ten years at least as much capital as has been guaranteed during the last decade. Would it not be worthwhile for the existing guaranteed companies to give a new fertility to the capital already sunk by undertaking these feeders?”
--Friend of India.-1863

Mr. Wilson immediately returned to London with the view of forming a Company to carry out his scheme. He submitted it to his old friend Mr. Kennard , and also to Marquis of Tweeddale, K.T., K.C.B, who would later be the chairman of the company; Mr. Kennard took it up warmly, and on its being explained to Mr. Pender , he at once appreciated its importance and heartily adopted it, and through his means Mr. Turner, M.P. for Manchester, Mr. Murray Gladstone, of Manchester, and Mr. Piatt, of Oldham, were also induced to give their powerful support and valuable countenance to the project. Mr. J. A Tobin, of Liverpool, on being applied to, at once consented to join the Direction.

These gentlemen had considerable influence amongst the merchants of Manchester and Liverpool, which contributed materially to the successful formation of the Company. Formerly, when he asked anyone to support it, he was generally met with a refusal, because it had not a guarantee, and when he told people it was something even better than the guarantee on the Indian lines, they were incredulous.

The terms given to the Branch Railway Company were: the free land, and a subsidy equivalent to £1,000 a mile, being the estimated cost of the earthwork and bridges for an ordinary road. Both London and Indian government extended all the support to the company and no official routine had interfered with the expeditious progress of the works. Mr. Wilson anticipated this light railway, constructed economically, to be highly profitable, and he fully expected that the line would yield a profit of from 10 per cent, to 12 per cent, in the first year, and would go on increasing.

The contract permitted Mr. Wilson to have his first light railway along the road from Jeeagunge opposite Berhampore, twenty-seven miles to Nulhattee, a station of the East Indian Railway, open by the end of 1863.

The directors of Branch Railway Company were further anxious to continue the line on the other side to Bogwangola, a great mart on the Ganges, and thence through Rungpore to Dinagepore and the Burhampooter river for Assam. They offered also to cover with a light railway one-half of the main road in Rohilcund, and from Agra to Bhurtpore, from Agra to Mynpoorie, from Cawnpore to Lucknow, and from Mirzapore or Buxar to Goruckpore, with the minimum speed of twelve miles an hour. But Sir C. Wood, Secretary of State, directed that the experiment should be first confined to the Nulhattee line.—Allen's mail 1863

A paragraph in the Indian correspondence of the "Times" had covered Viceroy's inspection of Nulhatee line on 5th February 1863:

"On his way to Benares, by special train, the Governor-General stopped at Nulhatee and carefully inspected the light railway which, has been laid down on an ordinary road from Moorshedabad by Mr. Wilson, C.E., engineer of the Indian Branch Railway Company. The gage is only four feet, and the line will probably be open in two months— a first experiment in a system of railway construction which may yet revolutionize Indian transit. The same Company are about to lay down a similar feeder of the East Indian trunk line from Cawnpore, through Lucknow to the Gogra, which is at this point more navigable than the Ganges.

A third very long feeder will start from a point about 60 miles from Delhi, and at right angles to the line pass through the rich Doab of the Ganges and Jumna to the foot of the Himalayas. But the longest of all will be a line parallel with the East Indian, to start from Buxar on the Ganges, and run direct up through Oude and Rohilcund, probably to Umballa. Instead of £12,000 a mile, the lowest average price of the guaranteed lines, these light railways will be laid down at £3,500 a mile, of which the State will contribute £1,000 in some shape or other as a subvention. All will be on the uniform Indian gage of five and a half feet, and will meet the insuperable difficulty of the want of wood by iron sleepers."

Mr. Wilson in a despatch to Board reported to Board the successful visit of Governor General:

'The Governor-General has visited this line and expresses himself very highly pleased and satisfied with everything, and assured me of the great interest he took in our success, as nothing in his opinion that had ever been carried out in India would have such an important effect on the prosperity of the country.'

Board of Directors

Indian Branch Railway Company was formed on 30th April 1862 with following Board of directors:

The Most Noble the Marquis of Tweeddale, K.T., K.C.B. late Governor and Commander-in-Chief of the Madras Presidency, chairman; William Dent, Esq., deputy-chairman ; Murray Gladstone, Esq. ; R. W. Kennard, Esq., M.P. ; John Pender, Esq., M.P. ; John Piatt, Esq. ; Lestock B. Reid, Esq. ; Lieut. -General D. Sim; J. A. Tobin, Esq. ; J. A. Turner, Esq., M.P. ; James "Wyllie, Esq. Bankers were Messrs. Heywood, Kennards and Co., 4, Lombard-street, E.C. Engineer in chief- J. E. Wilson, Esq.. C.E., late Superintending Engineer of the First section of the East Indian Railway.

Solicitors.- Messrs. Crowder, Maynard, Son, and Lawford, 57, Colemanstreet, E.C.

Brokers.- Messrs. Hill, Fawcett, and Hill, 29, Threadneedle-strect, E.C.

Secretary (pro term)— H. W. Wickes, Esq.

The Directors had appointed Messrs. Coleman, Turquand, Youngs and Co. to audit the accounts.

Temporary offices of the company were 29, Threadneedle-street, E.C.

"He had omitted to mention that Lieutenant General Sim and Mr. Reid had been good enough to join them. He remarked that to "Indians" such an undertaking as they were engaged in was a labour of love. Mr. Pender had said this was a child of his own, but he begged to say that it was a child of Mr. Wilson's, with Colonel Yule's kind adoption." **--Chairman speech in the first ordinary meeting of the Company held on Thursday, March 26, 1863 at the London Tavern**

Capital:

Authorised share capital of the company was initially kept £500,000, in 50,000 Shares of £10 each with provision to increase the capital to £2,000,000, in further series of Shares, to be issued preferentially to the then existing Shareholders. Deposit of £1 per Share was to be collected until further concessions were obtained from the Government. Detailed Prospectuses and Forms of Application for Shares were to be obtained of Messrs. Hill, Fawcett, and Hill, the Brokers of the Company; or of the Solicitors, Messrs. Crowder, Maynard, Son, and Lawford ; or at the temporary offices of the Company. The amount of £1 upon each share applied for had to be paid to the Company's Bankers at the time of presenting the application: this sum was to be returned if no allotment was made to the applicant.

The prospectus of this Company was issued on the 24th March, 1862, and a sufficient amount of capital having been subscribed on the 30th April, measures were at once adopted for providing the permanent way and rolling stock required. These were all despatched to India between the 10th of July and the 9th of November, and had nearly all arrived safely in Calcutta.

The prospectus mentioned the expectation of Agent and Engineer of the Company Mr. Wilson, that the experimental line from Nulhatee to Moorshedabad, 27 miles in length, would be completed and opened for traffic within 12 months from the date of the formation of the Company (30th April 1862).

“Judging from the cost of the materials sent from this country, and the expense of freight, insurance, etc., as exhibited in the annexed financial statement, the Directors cannot doubt but that the line will be constructed within the estimate, and they are gratified in being able to report that their latest advices from Mr. Wilson lead to the expectation that the line will be opened by the 1st of the present month, or exactly ten months from the formation of the Company.”

The shares of this Company, from not possessing the guarantee of interest by the Government of India, were at one time considerably depressed, but the public having become better acquainted with the principle upon which the Company was proceeding, and the prospect of the large returns that may be expected from railways so economically constructed and worked, valuation of shares improved in public estimation. Of this improvement advantage was taken to allot the whole of the reserved shares of the first issue rateably to the then existing Shareholders, so that the capital of the Company rose to 50,000 shares of £10 each, with £2 paid.

“All that England wants to deluge us with her annually increasing surplus capital is men of honour, skill, and experience, who will not mislead the investing classes, and will carry out their contracts with the State. - “—Friend of India.1863

The capital account statement presented during first Annual General Meeting showed that £91,019 had been received and £28,604 expended, leaving £20,092 cash in the hands of agents at Calcutta, £25,600 deposited at interest with the bankers, and £16,823 cash at banker's and in hand, making together £62,415 available.

It was decided in second meeting that in accordance with the power given to the Directors at the first Annual General Meeting, a further issue of capital, to the extent of 60,000 shares of £10 each, should be allotted to the registered Shareholders to undertake construction work in Oude region. In accordance also with the resolution passed at the same meeting, interest at the rate of 6 per cent, per annum was paid to the Shareholders for the quarter ending 30th June, 1863.

The capital account showed that £147,476 had been received, and £68,331 expended, leaving a balance of £89,145.

The board had obtained the services of Lieutenant Colonel Johnson, of the Royal Engineers, as their secretary. Colonel Johnson had occupied for many years the position of chief adviser to the Government in the presidency of Madras in reference to railways, and he had the control of the railways in the presidency while holding that position.

-- Herapath journal 1863

Speech of The Chairman Oude and Rohilkhund Railway in thirtieth general meeting of shareholders in 1877 traced the journey and growth of the company in last 15 years:

“The Indian Branch railway, which was formed, as many of you are aware, for the purpose of introducing into India a cheap and inexpensive system of railways.

I remember when Mr. Wilson, our former engineer, returned from India, he came to me at Manchester, where I was then residing, and stated that this system of narrow gauge railways might be carried out and worked with great success in India. I took some trouble in the matter at the time, because Manchester at that moment was very much alive to the increased growth of cotton in India, and the great obstacle that existed to the extension of that growth was the heavy cost of bringing the commodity to the seaboard. At that time a number of gentlemen connected with India combined together to form what were called Indian branch railways.

The company was guaranteed upon mileage rates—not a guaranteed interest upon the capital, but simply so much per mile. That company went on, and I believe the first line of that kind made is still in existence, and paying a good return upon the capital invested. It has passed into the hands of the Government, who, I believe, made a very good bargain of it, but it served to establish the principle which I believe the Government of India at the present day would only be too glad to see more extensively carried out.

However, the Oude and Rohilkhund was forced to adopt the existing gauge in India, and I am glad to say the railway has been made at a price which may be considered one of the most successful enterprises in India at the present moment.”—RailwayTimes 1877

Colonel Yule, Director of company contended the policy of constructing BG feeder line and said that the case in India was different, because the narrow gauge branch lines could never oppose the great lines, or compete with them. They were merely intended as feeders, and to supersede bullock trains, which could not travel in the wet season. He was fully convinced that the main lines would not pay unless fed by: the cheap light lines the company proposed to make. The difference in cost between £3,500 or £4,000 a mile and £16,000 a mile could not be preserved if the gauge of the main lines and branches was to be uniform,

Mr. Pender, M.P., quite agreed in that view. He wished the proprietors not to be too sanguine as to having large dividends; at the same time he thought they had a good concern if they could manage it properly. Four hundred and sixty miles of cheap railway was a large undertaking, and their profits would depend upon the result of each section. Should the traffic hereafter become so great as to require a wider tract and heavier engines and carriages on some of their lines, they could be relaid with heavier rails, and the gauge could be widened to the full width of the trunk lines.- shareholder’s meeting 1877

“The Nalhati and Azimgunje Railway: originally constructed by the Indian Branch Railway Company (now the Oudh and Rohilkhund); it runs from Nalhati, a station 146 miles from Calcutta, on the loop line of the East Indian Railway; it is 27-1/4 miles in length.

The company originally expended about 80,000l. on the railway, but Government declined to admit more than 30,000l. of this as capital for guaranteed interest when the original Indian Branch Company became the guaranteed Oudh and Rohilkhund Railway Company.” -- **Engineering: For Innovators in Technology, Manufacturing and Volume 18, 1874**

Government approval & Negotiation:

Government in their desire to promote large investment of private capital in the improvement of the internal communications in India agreed to provide certain concessions and inducements to Branch Railway Company.

Sir Charles Wood, The Secretary of State has condescended to express his approval of the arrangements made by the Government of India with the Indian Branch Railway and Tramway Companies, and writes thus patronisingly —“The further development of this important subject I commit with confidence to the care of your Excellency's Government. By the course which it is proposed to adopt, great inducements will be held out to the investment of capital in the undertakings in question, and I trust that the success of the first experiments will be such that at no distant time contractors may be found ready to bear a larger proportion of their cost, and that private enterprise may thus become a most valuable assistance to Government in the improvement of the internal communications of India.” In such details as these the Government of India is much better able to judge of what is right than Sir C. Wood, who so long and vexatiously opposed both the Branch Railway and Orissa irrigation Companies.- Allen's mail 1863

Admitting that sad experience had proved the extent to which extravagance, delay, speculation and public apathy had been caused by the guarantee system, Lord Elgin announced that he was prepared to aid every railway project he approved of by a subvention, if it adhered to the uniform railway gauge of five and a half feet, and did not exceed in cost of construction four thousand pounds a mile.

Mr. Wilson would conduct intensive consultations with authorities in India and England to secure various grants including free land and fixed yearly subsidy to the tune of Rs 1000 per mile for 20 years.

“No. 76, dated 21st January, 1864.

From— Under Secy. to Govt., N. W. P., in the P.W. Dept., Railway Branch,

To—A. G. MURRAY, Esq., C. E.

With reference to your letters, dated 17th June and 28th December 1863.

I am directed to forward to you the accompanying No. 4, dated 6th January 1864.

copy of a letter from the Commissioner of Rohilkund, on the subject of the line of railway from Muttra to Kutchla Ghât proposed by you.

2. I am to remark that this Government would view favourably any project for the construction of a railway on the line referred to, and would recommend to the Secretary of State the grant of aid to the extent proposed for the Indian Branch Railway Company, viz., the grant of all land required for the line and permanent buildings free of cost, and a subsidy of Rs. 1,000 per mile of railway open for 20 years."

Mr. Wilson in a letter dated 30th March, 1864 outlined his plans for construction of light Railway-west of Jabalpur lines to connect Bombay and EIR network.

"From—J. E. Wilson, Esq., Agent, Indian Branch Railway Co.

To-Secretary to Government of India, P. W. Dept.,

I have the honour to state that I am in communication with persons of position and influence in London, who, interested in Indian affairs, are prepared to form a Company for a further development of light railways, in any locality which offers sufficient prospects of traffic, and where the extent of lines would be sufficient to ensure economical administration.

2. *Under these circumstances, I have the honour to ask whether His Excellency the Governor General in Council would think proper to grant me, on behalf of the proposed Company, a provisional concession of such lines as may be required, west of the Jubbulpoor line, for the purpose of connecting together the Bombay, the East Indian, and the Oudh and Rohilkund systems.*

3. *A provisional concession similar to that conveyed to me by His Excellency in Council, in the case of the Nulhatee line, when I first brought the subject of light railways before the Government of India, would be quite sufficient.*

4. *In the case of the Nulhatee line, the aid afforded to the Company by Government, consisted in a gift of half the road just constructed between that station and the Bhagiruttee river. There being no roads in the localities in question, the assistance from Government would be asked for in the manner which you have devised in the case of the Oudh and Rohilkund Railways. But as the country through which the suggested lines would pass is very much heavier than any part of either of these two Provinces, Government would no doubt make an increase in the annual subsidy.*

5. *The preliminary operations of studying the ground and choosing the best lines, being such as done conscientiously, require a considerable amount of time; it would be very desirable to take up that portion of the undertaking as soon as the views of His Excellency in Council on the subject may be laid down.*

6. *I therefore beg to state that I am prepared to proceed with the preliminary operations whenever His Excellency the Governor General thinks proper, on the*

understanding that should the Government not think proper to grant a permanent concession to the proposed Company, or at any time previously require nothing further in the way of these preliminary operations to be proceeded with, that the amount expended on the preliminary operations should be refunded to the proposed Company, such amount being ascertained to be fair and reasonable.

7. I am shortly proceeding to England, and beg therefore to ask for an early expression of His Excellency in Council's decision."

On the 1st May 1863, the Secretary of State for India, after full discussion of the subject with a deputation of board of Directors of Indian Branch Railway, addressed to them the annexed letter, giving to the Government of India full powers to arrange with the Company for the construction of railways in those provinces.

A letter addressed by the Secretary of State to the Government of India on the same subject reached

India in the middle of June last, but the Governor-General being then at Simla no conclusive arrangements could be entered into. The board, however, received demi-official information that the whole system of railways for Oude and Rohilkund would be conceded to this Company; and in the interim, pending final negotiations, chief engineer had surveyed the main line through those provinces, from Meerut to Ghazee-pore, and that from Cawnpore by Lucknow to Fyzabad.

"He reports the results of the surveys to be most satisfactory, and continues to express full confidence in being able to complete the construction of the lines at a cost not exceeding £4,000 per mile, as reported to the meeting in March last. By the latest accounts from India, Mr. Wilson was on his way to the Governor- General's camp to conclude final arrangements.

-- Herapath's Journal 1863

On the 17th of August 1863, Mr. Wilson had reached Lucknow, having gone over the projected line from Baxar to Lucknow, and he wrote stating that he was perfectly astonished at the fertility, richness, and population of that part of India, and that he did not entertain the slightest doubt of the success of their railway there. The Directors had not the slightest reason to doubt that everything would be settled in the most satisfactory manner by the Governor-General. He had now full powers, and hitherto it had been the references home which had occasioned the delay.

The Government, considering that these lines would form part of the system of railways in India, required that the lines they made, especially the line from Baxar to Meerut, and the line from Cawnpore to Lucknow, should be of the standard gauge ; and Mr. Wilson stated that the change of gage would be no disadvantage, but a very great advantage, as they would be enabled to run over the main trunk lines, while it was distinctly understood that the engines of the main trunk lines were not to come over their lines.

Sir C. Trevelyan, dated Calcutta, June 22, 1863, wrote:—" *I congratulate you and your colleagues on the Oude concession. You shall always have my hearty Support—as hearty as if there had been no difference of opinion on the subject. But I hope you will prove that the decision was a right one by making railways ' worthy of the field.'* These are not branches, but trunks, connecting great and populous

provinces with others still more populous and with the sea, and the world at large. In due time, your and the East Indian Railway Companies should unite to build a bridge over the Ganges."—**Herapath's Journal 1863**

Mr. Wilson was able to secure similar terms for construction of Railways in Oude-Rohilkhand. When he pointed out that two bridges would be required in Nulhatte line for water passage, Government readily agreed to construct these two bridges.

"The terms offered by Government are, you will perceive, now confined to the grant of the land, with, in place of the road, a subsidy of £100 a mile a year for twenty years, to which they will not object to add one-half that annual payment during construction. The other arrangements were to be on the basis of the Nulhattee agreement.

"I am, therefore, in no doubt whatever as to my ability in carrying out the construction of the roads, and to deliver you the lines ready for running at a sum not exceeding £4,000 a mile, Looking at the traffic and the population, the lines cannot fail to yield a very large return".
-- **Herapath's Journal 1863**

Rapid expansion of Branch line network:

After announcement of Lord Elgin that he was prepared to aid every railway project he approved of by a subvention, if it adhered to the uniform railway gauge of five and a half feet, and did not exceed in cost of construction four thousand pounds a mile, the Indian Branch Railway and Tramway Companies started working on these conditions.

"Sir John Login is now arranging for a long tramway feeder to the Bombay and Baroda line; and the Branch Railway Company, with its energetic projector, Mr. Wilson, has engaged to construct a series of light railways, the very extent of which takes away our breath."

Mr. Wilson had submitted plan to lay down a light railway from Cawnpore right across the Ganges and Gogra Doab through Lucknow and Fyzahad to Byramghat on the Gogra. A body of native capitalists have engaged him to construct a bridge over the Ganges at Cawnpore, under the Act about to be passed for private enterprises.

Higher up the Branch Railway Company planned to construct another feeder at right angles to the East Indian line near Koorjah, in the Jumna and Ganges Doab which would pass through Moradabad and end at Kaladoongee, at the foot of the Himalayas.

A long line was projected from a point on the Ganges near Ghazeepore, to run through Oudh and Rohilkund between the Ganges and Gogra, crossing the two railways at right angles, passing through Fyzabad, Shajehanpore, Bareilly, Bijnour, and Mozuffernugger, and joining the Calcutta and Punjab line at Umballa, or some point to be decided by Lord Elgin will decide when on the spot.

“Thus Oudh and Rohilcund, the latter so long neglected but so wealthy, will be opened up, and the commerce of Northern India be poured into Calcutta.”

-- Friend of India , Allen’s Indian Mail 1863

The Secretary of State for India had given the Government of India full powers to arrange with the company for the construction of railways in those provinces.

In addition to the Nulhatee line, 796 miles of road were granted by the Indian Government to the company in the provinces of Oude and Rohilcund.

--Allen’s mail 1864

Secretary of State consented to allow the Lucknow and Cawnpore line a trial for two years from the date of opening for traffic(which will no doubt be before the close of the year), before requiring the company to execute a contract for the construction of their whole system of railways, provided the directors would engage that, at the end of that time, or at the end of four years from 26th March last whichever might be the shorter period of the two.

If Company was not prepared to execute the contract on terms to be approved by the Government of India, they would transfer to the Government of India, in full property, the Lucknow and Cawnpore line, on being reimbursed the amount expended by them upon it, less any debt which may be due from them to the Secretary of State or to the Government of India.

On this understanding the Secretary of State was also pleased to grant a loan of 60,000/ to the company, to bear interest at 5 per cent per annum for three years, on the security of the company's debentures for a similar amount – **Railway Times 1866**

It was expected that other companies would follow the lead of Indian Branch Railway to construct rail network all over the country:

“ We expect soon to see the stock market deluged with projects of Indian companies. Besides the Dacca, Assam and Darjeeling extensions of the Eastern Bengal line, which, without bridges and with ferries, might be made at £3,000 a mile, a cheap line must be laid direct from the coal railways of Raneeunge to Patna, saving seventy miles in the direct route to Bombay; another from Patna to wealthy and superstitious Gaya; another into the coal country of Singrowlee; another from Agra to Muttra. Goruckpore, with its enormous trade, has to be provided for; Orissa and Midnapore, with their traffic and temples, to which there is hardly a road, cannot be content with the canal promised by the East India Irrigation Company. Then there are the Central Provinces, the other Presidencies, and the native States. “

Contract between the Secretary of State in Council and the Indian Branch Railway Company dated 2nd August 1867 was signed empowering the company to construct 672 miles of Railway in Oude and Rohilcund. The company after signing the contract changed its name to Oude and Rohilcund Railway Company,

Issue of Gauge:

A chronology of official views on gauge in view of scheme presented by Indian Branch Company-

The views were adopted by the Government of India, for in December 1862, when Mr. J. E. Wilson, the Agent for the Indian Branch Railway Company, reported to Government that he was "prepared to enter into definite arrangements for the construction of the roadways and the laying down of light railways thereon, in Oudh and Rohilkhand; the Government of India, in passing orders on the reference, laid down the following conditions as regards the gauge :-

The first point that calls for remark is the gauge, to which you make no special allusion. His Excellency in Council is of opinion that It will be essential to insist on the adoption of the standard Indian gauge of 5 feet 6 inches in the ease of all railways that are intended to form portions of main lines. But when the lines proposed are designed as bona fide tramways, that is, feeders to the main system but not essential parts of it, and when the expected traffic may warrant the outlay necessary for the formation of a full gauge line, the Government of India will sanction, as it has already done in the case of the Nalhati line, narrow gauge light lines, as a temporary expedient, on the conviction that such lines will be replaced by full gauge lines of a more substantial character whenever the development of the traffic renders such a change advisable. Where such narrow gauge lines are sanctioned, it will therefore be an advantage that they should be of the lightest and most economical description compatible with safety and the necessary degree of permanence, in order that there may be the least possible difficulty in the way of the change when it has become expedient, and that there may be no doubt as to their temporary and provisional, character, and no risk of their being permitted to grow into a system which would compete with the system constructed on the standard or national gauge.

A slight digression here is necessary to give an outline of the objects of the Indian Branch Railway Company, and how they were affected by the question of the gauge. Of all the numerous Companies that were projected for building light railways in India, this was the only one in Northern India that actually did proceed to make lines in India. The original projector of this Company was. Mr. J. E. Wilson; and it was his desire to lay light lines of railway on existing roads, but on a narrower gauge to that on the trunk lines, and thus act as feeders to the trunk lines. This idea seemed the only feasible method by which a large network of light rail ways could be spread over India; it was welcomed by Lord Canning as a probable solution of a most difficult problem, and was heartily backed by him during the latter months of his stay in India. The first offer made by this Company was to construct a light line of 4 feet gauge on a road which the Government of Bengal were just completing between Nalhati station on the East Indian Railway and Azimganj, situated on one of the effluents of the Ganges and on the road to Murshedabad. This line was actually made without a guarantee, was opened for traffic on the 21st December 1863, and is still working on its original gauge. It was, however, bought by the Government in 1868, and has been remodelled on a more permanent basis.

This Company then desired to make a light line between Cawnpore and Lucknow and other lines in Oudh. and Rohilkhand, and they actually did complete the Lucknow-Cawnpore line. The Company, however, found that they could not raise sufficient capital to continue their ventures, and appealed to the Secretary of State for a guarantee. This was eventually given, and the Indian Branch Railway Company merged into what is now known as the Oudh and Rohilkhand Railway Company.

But before permission to construct the Lucknow-Oawnpore line was given the news of the Indian Government had considerably changed. Lord Elgin's Government would hear of no narrow gauge railways, except in such detached and fragmentary sections as held out no promise of being ever worked remuneratively from the heavy cost of the independent establishments.

indeed, it seems that Mr. J. E. Wilson himself had changed his ideas for it is stated that he "readily accepted the 5 feet 6 inches gauge for all his lines " &c. This is to be found in the note written on the whole matter by Colonel Strachey immediately after Lord Elgin's death, and in which is embodied, as far as was known, Lord Elgin's opinions in the case. Sir C. Trevelyan, in a Minute dated 4th September 1863, also recorded Public Works Department Proceedings, June a. strong protest against making either light railways or railways on any other but a uniform gauge. The following extract refers to the question of gauge :-

I have always been of opinion that a fallacy is involved in the idea of light railways the railway experience in England is greater than that of any other country. For many years after our railway system commenced, there was a constant craving after a cheaper kind of railway. Project after project appeared for the formation of light railways or tramways, but they were all dropped. Atmospheric and other eccentric forms of railway were attempted; but, however specious the light railway principle might he, there Was something in it which always led to its being abandoned on close examination; and it never arrived even at the dignity of an experiment. Cheap agricultural railways are now being made in various parts of the' country, but they are all solid, full gauged railways, quits capable of hearing the rolling stock of the main lines with which they are connected, and their cheapness arises only from their being single lines, from the landed proprietors asking moderate rates for their land, because they are convinced -of the advantage to them of the railways; and from the Parliamentary expenses having been reduced to a mere trifle. Experience is so much better than theory, that I will not waste time in endeavoring to account for these results. The fact seems to be that a metalled road is a cheap medium of communication, and so also is a solidly constructed railway, but that a railway which is constructed in such a manner that it will not admit of the full application of the power of steam is not an economical medium.

The practical difficulties in the way of converting a narrow gauge into a full gauge railway are so great, that I look upon the power which it is proposed to reserve to the Government of ordering such a conversion to be entirely illusory. Earthwork, bridges, rails and rolling stock, all have to be constructed on a different scale for a narrow and medium gauge, and, as observed by the Hon'ble the President, in the event of conversion, a small section of the earthwork and ballast; and some buildings will be all that would be saved.

The 'longitudinal' line, of which the Indian Branch Railway Company desire the concession, is no branch but a main line more than 600 miles long, passing through some of the richest and best populated provinces of the empire. Even the branches to Cawnpore and Koorja, connecting this line with the East Indian, are so important, that the Government very properly stipulated that they should be laid on the standard gauge.

The commonest foresight, therefore, requires that the main line as well as the branches should be laid on the standard gauge; and if the Branch Railway Company obtains the concession, it must change its name and concentrate its efforts on the construction of an entire system-main line and branches--on the splendid field which will be placed at its disposal. The Indian standard gauge is 5 feet 6 inches. The gauge fixed upon by a Government Commission for the Irish railways as the smallest which could with advantage be adopted was 5 feet 3 inches. The negotiations with the Indian Branch Railway Company were reported to the Secretary of State in April 1864. (Sir J. Lawrence, Governor General), and the despatch was accompanied by all the notes and minutes that had been written in Lord Elgin's time. The arrangements made by Lord Elgin's Government were assented to generally and the following extracts from the despatch will show that a gauge narrower than 5 feet 6 inches was deprecated, unless nothing better could be got without a guarantee.

In contemplating the construction of light railways of the 5 feet 6 inches gauge, Lord Elgin had never intended that the engines of the heavy line should run on them. It was well understood that in England engines of one Company are rarely run on the line of another, and that the practical working of railway is not compatible with such a system of interchange of engines, and that all that is ever requisite of the interchange of wagons and carriages. A 5 feet 6 inches gauge light line was accordingly considered to mean a railway capable of carrying at a moderate speed the ordinary passenger and goods vehicles in use on the Indian main lines.

Having these views, Lord Elgin authorised an arrangement being made with Mr. Wilson by which the character of the Oudh and Rohilkhand lines was to be defined by declaring that the maximum load per wheel should be 3-1/2 tons, and the maximum speed 15 miles an hour. This will allow of the ordinary wagon and passenger stock of the East Indian Railway running over the Oudh lines whenever the Ganges bridges are finished. To these arrangements of Lord Elgin we give our complete assent.

--Administration report 1880-81

The failure of the Indian branch railway to raise money in the London stock market for their projected railways throughout the Oudh and Rohilkhand led that company to make overtures to the government for a guarantee of interest on all capital raised. It was recognized that public would not venture their money without some kind of guarantee and if the development of the country by increased railway communication was desired it can be done only by reverting to the old guarantee system. In 1866 the secretary of state was disposed to give with certain modifications, a guarantee of 5 per cent on the capital raised, as had been accorded to the old companies.

Construction:

The Nulhatee line was 27-1/4 miles in length, gauge 4 feet and rails originally laid weighed 32 lb per yard. The rails rested on teak, "pressure plates," over the substructure of a first-class un-metalled road, made over to the Indian Branch Railway Company for the construction of this line.

Though the prospectus mentioned that the experimental line from Nulhatee to Moorshedabad, 27 miles in length, would be completed and opened for traffic within 12 months from the date of the formation of the Company, but, the early opening of the Nulhatee line, was unfortunately delayed, as the roadway, complete in all respect was not handed over by the Government to the company.

The road did not have sufficient openings to carry off the flood waters of the district and the Government undertook to supply the additional waterway required, but the non-completion of one of the principal bridges had up to the 1st August 1863 prevented the opening of the line.

The last rains had proved the necessity of providing additional bridges, and these bridges, up to the 1st of August 1863, when Mr. Wilson visited the line, were not completed. To show how near the line had been completed, Mr. Wilson had put an engine over the bridges, but he did not think the line should be used for traffic until they had had time to consolidate.

Meanwhile arrangements were made with the Government for extending the Nulhatee line 8-1/2 miles, to Bogwangola, a port on the Ganges, and the road which the Government had to make and deliver to the Company was reported in a forward state. Nearly all the materials of the permanent way, locomotives, &c, for this extension had been shipped for Calcutta. It was expected that the whole of this branch line might be opened for permanent traffic by the middle of 1864.

"The Shareholders are aware that it was the original intention of the Company to adopt a 4-ft. Gage for their lines, but the Government have made it an indispensable condition that the standard gage of 5 ft. 6 ins. shall be adhered to for all such lines in the provinces of Oudh and Rohilkund as form a part of the general system of railways in India."
-- Herapath's Journal 1863

It was assured by Chief Engineer that the adoption of the broader gage will not materially affect either the cost of construction or the working expenses, inasmuch as it is proposed that the rails, rolling stock, &c, shall be much lighter than those used on the Grand Trunk guaranteed lines, and that the speed shall not exceed that originally intended by this Company.

Lord Elgin had stated in his late speech on the opening of the East Indian Railway to Benares, that though eventually all Indian lines should be on the uniform gauge of 5-1/2 feet, to insist on this now would involve that all branches should be heavy enough to bear the stock of the mainline, and therefore should cost, like them, £10,000 to £16,000 a mile—a conclusion which his lordship could not accept.

None but the very greatest lines of traffic in India would remunerate railways of the calibre and cost of the guaranteed lines. Now, vague resolutions to limit expense were useless. Everybody made them at starting. Tangible things which could be limited were speed, weight of rails, and gage. Break of gauge, no doubt, was heresy.

But the choice really was between break of line and no branch railways. Community of gage and contact with the great lines would infallibly force the Company into interchange of stock, equality of speed, equality of cost, and the whole principle of this enterprise would be gone.

“If, however, the Indian Government insisted on the standard gage for lines in Oude, there was this consolation, that the Ganges would for years to come protect us from being forced into the expenses alluded to, probably till developed traffic would justify railways of larger calibre”.
--Herapath Journal 1863

Large traffic was expected after the proposed extension of the line to Bogwangola, a small port on the Ganges. The Government considered it important that the line should be extended to that port. The Company had already received Rolling stock and was awaiting handing over of the ready roads from the Government, to quickly complete the balance works.

“During the year considerable attention was paid to the state of the road, a capital grant of one lakh having been assigned by the Government of India for the provision of sleepers and fastenings from England .Owing to the unexpectedly cheap rate at which the sleepers were obtained, a large portion of the grant was allowed to lapse which might have been expended with advantage on further improvements to the line, but a great deal of good work has been done. The line has been laid throughout with either creosoted pine or red gum sleepers in lieu of the old and obsolete pressure plates, and the rails have been straightened and fastened with proper bolts and fish plates; spikes have also been substituted in the sleepers for the old coach screws, The line has also been ballasted in the worst parts”.--
Administrative Report on Indian State Railways 1881

During the year (1878-79) under review the permanent-way, bridges, culverts, stations and buildings, and rolling-stock were all maintained in good working order, and the traffic was carried on without interruption.” Heavy renewals were effected to sleepers and fastenings. Sleepers to the number of 14,400, or 23.7 per cent of the total, were renewed during the year. Some 10,800 cubic feet of ballast was laid on the line. Twenty-seven thousand three hundred spikes and 3,000 new fish-bolts were put in .The cost of the new permanent-way materials was borne by capital and the cost of labor by revenue.

The Assistant Manager's bungalow, which had become dangerous, was pulled down and a new house constructed in its place, using up as far as possible the old materials of the dismantled bungalow. The arrangement for washing out engines at Nalhatti was also completed in 1879.- **Progress and Administration Report of the State Railways in Bengal 1879**

The Indian Branch Railway took up their work in Oudh in real earnest in 1865 and deployed a large staff, around 5000, on the spot. Government appointed three Commissioners to represent its interests and those of the inhabitants—the Deputy-commissioners of Lucknow and Oonao and the chief engineer of Oudh.—**Allen's mail 1865**

Progress of work up to 1865 was published in Oude Gazette.

The first land, viz., for about two miles of the line, was made over to the company by Government in June of last year. The railway, from the Charbagh Station at Lucknow to the banks of the Ganges at Cawnpore is 42-1/2 miles long. The last of the land for this first section of the company's operations was obtained in May of the present year. The average time during which the works have been in progress throughout is about nine months.

Work on bridges and culverts were complete except two bridges over which arching was in progress. Many of the level crossings and much of the fencing work was also complete. Ballast had been collected, and was being laid down ready for the sleepers. Permanent way and rolling way stock had been ordered and were on the way from England.

Lucknow Station, which was intended to form eventually a central depot for Oude under military protection, was in an advanced state. The first road side station planned at Harownee on the Sundeela, Mohan and Bunnee road, the second at Ajaen, near Nawabgung, and third at Oonao were in a forward state, some of the buildings being about to be roofed.

Some twenty buildings were in course of construction. A temporary terminus was being erected on the bank of the Ganges near the pontoon bridge, and was in an advanced condition. There are about 5,000 people in regular employment. The line was expected to be ready for traffic about the middle of next year.

--Oudh Gazette.1865

As regarded the construction of the Nulhatee line, it had proved so far successful, but it was deemed necessary to construct the Lucknow and Cawnpore line on a 5-1/2 feet gauge. The Government had appointed a commission to report on the system of construction and working adopted by the company on the two lines. The report of that commission was not so conclusive as could be wished. He might say they had come to the conclusion that a more substantial line would be preferable and stronger rails than those adopted of 361b. to the yard.

In respect of the Nulhatee line, the company had made a proposal to the Secretary of State, who he believed had referred the matter to the local Government.

Government of Bengal had urged on the Supreme Government the importance of the Nulhatee line. It was estimated that the cost of restoring the ordinary road on which the Nulhatee line was laid to its former condition would be 10,000/, or say equal to 500/ a year; the annual maintenance of the ordinary road when restored would be 2,100/ a year, making an annual charge of 2600/ a year.

The Nulhatee line and plant had cost 50,000/, and the interest at 5 per cent would be 2500/ a year. The company proposed to the Government that if they would

permit the 2,500/. a year to be paid to the company out of local resources, they would undertake to maintain and work the Nulhatee line, which was 27 miles in length, as a railway at their own risk.

He thought the arrangement would be mutually advantageous to the Government, to the company, and to the district through which the line passed, and he hoped some arrangement would be made for maintaining the line as originally intended.

--The Railway Times 1868

Use of 60 lbs Rails in construction:

The Lucknow and Cawnpore, with a gauge of five feet six inches, a rather heavier rail, and altogether of more solid construction than the Nulhatee, showed signs of weakness after the first year's working with a somewhat heavier traffic but still with a comparatively light traffic, and though the injury done to the permanent way was to a great extent, perhaps, due to the section of the rails not being adapted to the rolling stock which had been run upon them, the inevitable conclusion was that the way was not adapted to admit of an interchange of traffic with the East Indian and other trunk lines, which was the principal object the Government of India had in view in ruling the adoption by this company of the standard Indian gauge of 5ft. 6 inch.

Whether, therefore, consideration be had to the branch lines of the company's system, or to their main line, the board considered it advisable to at once give up the light system of the Lucknow and Cawnpore, and between that and the East Indian system to adopt an intermediate one, which, regard being had to the moderate speed at which the traffic was to be ordinarily worked, would be calculated to meet every emergency, and to do all that might be required of it, without risk of failure. With this view, the board proposed to adopt a rail of 60 lb. to the yard, and to abandon the vertical and flat-topped section of rail in favour of one suited to the rolling stock ordinarily in use. This proposal had received the sanction of the Secretary of State.

-- The Railway Times 1868

Chairman in half yearly meeting in 1871 spoke about the gauge of lines to be constructed by the company. *"The Government were anxious to extend railway communication in India by means of narrow gauge lines, and he believed the gauge now fixed for that purpose was one of 3-1/4 feet on the ground that it would cost less than one of 5-1/2 feet. They all knew the inconvenience of break of gauge in England, but that would not be serious in India, where they did not mind delay. It so happened: that the choice lay between having a very bad common road and a very good narrow gauge railway. The 3-1/4 feet gauge would pay in a country where a 5-1/2 feet gauge would not"*.

--Herapath's Journal 1871

"The road was formed by Government as for a first class metalled road, and one-half of the surface was made over to the Indian Branch Railway Company for a single track. The rails, which weigh 31lbs. to the yard, were originally laid on teak, Sal and pine sleepers: 8-2/5 miles of the line have been re-laid with steel rails, 41lbs. to the yard. Two miles of 41-1/4 lb. rails are laid on Denham-Olphert's pattern iron sleepers with Molesworth's wedges. All the pine sleepers have been removed and replaced with second-hand Sal sleepers. There is very little ballast on

the line but sufficient considering the low rate of speed. Gradients below 1 in 100 have been altered to 1 in 100.

From the 1st April 1892, this line will be incorporated with the East Indian railway and known as the "Azimganj branch" of that railway. --**Administration report 1891-92**

Inaugural run:

Official Opening of the First Line of the Indian Branch Railway Company.

On the 11th November the Nulhatee and Jeagunge line of railway, the first constructed by Mr. J. E. Wilson, of the Indian Branch Railway Company, was formally opened for traffic by the Lieutenant-Governor of Bengal, who came down from Bhagulpore for the purpose. A large party left Calcutta by special train at 8.10 A.M., and reached Nulhatee at 1.30, after a run, excluding stoppages, at the average rate of forty five miles an hour. Nulhatee is a station of the East Indian Railway, 1454 miles from Calcutta.

Hence to Azimgunge, on the Bhaguruttee, one of the three great branches of the Ganges which forms the Hooghly, the branch line runs for twenty seven miles along the ordinary road. Jeagunge is on the opposite side of the river, a few miles from Moorshedabad. The half-way station is Bokhara, which was reached from Nulhatee at the rate of twenty-six miles an hour, though the railway is constructed for a speed of twelve miles.

The special train consisted of one of the new light engines, designed by Mr. Wilson and constructed in Paris by Anjubault, a large third-class carriage fitted for 200 passengers, but finely fitted up as a saloon, and an open carriage resembling the American cars. At two o'clock a party of sixty gentlemen sat down to tiffin in the Bhokara station, which was constructed of corrugated iron, nicely painted.

One of the engines, renamed later as "Ramgotty" after the Indian agent of Nulhatee Provincial State Railway, would, undergo gauge conversion after the line was taken over by EIR and converted into BG. It would luckily be subsequently rescued and displayed in National Rail Museum

Mr. Wilson was supported on his right by the Lieutenant-governor and by Mr. Montresor, the Commissioner of Burdwan; on his left by Mr. Schalch, C.S., the Mayor of Calcutta. Captain Williams represented the Public Works Department of the Government of India, Messrs. Robbert Roberts (Chief Clerk and Accountant i.e, chief auditor of EIR) and J.C.Batchelor (Traffic Manager Howrah) from the East Indian Railway, and Mr. F. Prestage the Eastern Bengal Railway. Several engineers were present, all interested in Mr. Wilson's improvements. In proposing the health of Mr. Wilson, and success to the Indian Branch Railway Company, the Lieutenant-Governor pronounced the Railway a success, and contrasted its cost of £1,900 a mile, excluding the road, with the £19,000 a mile expended on the heavy line of the East India Railway.

His Honour looked forward to the time when the great trunk system of railways would be fed by numerous branch lines like the present. The toast was received with cheers, and Mr. Wilson briefly replied. After tiffin, Mr. Fisk Williams, the photographer, took two or three pictures of the engine, the train, and the party present.

The train returned to Nulhatee at 5 P.M. Leaving that station at 5.45, the Lieutenant-Governor and party reached Calcutta at 10.40 by special train, having stopped half an hour at Burdwan for dinner. The day, which was wet and gusty in Calcutta, was glorious on the plains of Beerbhoom.

All those who were present at the opening expressed their gratification at the success of what was previously being considered a doubtful experiment.

The line was opened to the public, at the same rates as prevailing on the East Indian line, on 21st December 1863, after it was officially inspected by the Public Works Department. Passengers were booked through, just as if it were part of the East Indian line.

The Railway is being continued for eight miles to Bogwangola, on the Ganges, and thence there is every probability that a light line will run direct north to Darjeeling through Dinagepore.
--Friend of India, Nov. 19, 1863

On the 11th of November 1863 the first line of the Indian Branch Railway, from Nulhatee to Jeeagunge, one hundred and forty-five miles from Calcutta, was opened with much formality by a party of sixty European gentlemen, with the Hon. Cecil Beadon, the Governor of Bengal, at their head. The carriages are like American cars, with a door at each end and none on the sides. Each carriage is fifty feet long, and takes two hundred passengers. The East Indian line had cost £19,000 a mile, while this railway cost only £1,900 a mile—an almost incredible difference. —
Allen's mail Vol. XXI.-No. 609 LONDON, WEDNESDAY, DECEMBER 23, 1863

Rolling stock:

Rolling stocks were carefully selected and sometimes designed by Mr. Wilson to keep their cost low without much compromising on safety, while meeting basic transportation need.

“The first quarterly inspection report of the Nulhatee and Azimgunge line of the Indian Branch Railway does not speak favourably of the condition of the fencing, and indeed the whole seems to be a gingerbread affair—we mean, of course, on this particular line. Major Hovenden says: — “The passenger carriages are of great length, and open throughout their length, somewhat like the American cars. They are not uncomfortable, but are deficient in roof ventilation. Each carriage runs on six wheels. They are somewhat flimsy in construction, but appear to answer very well for a low rate of speed. The goods wagons are of various patterns, having been constructed at various times as experiments, with a view of ascertaining how the requisite strength and capacity could be obtained with the smallest amount of dead weight and at the least cost.
--Hurkaru. 1865

The steel carriages had been found heavier than was expected, and the steel axles were too weak to be relied on, so that they had to get heavier axles and wheels of the ordinary kind. The steel axles would be no loss, as they could be converted into tools to be used in the workshops. They had purchased forty sets of wheels and axles at 25/ per set from the East Indian, and about 2,800/ would pay for the wheels and axles required, and which they could obtain from the East Indian. -- **The Railway Times 1868**

Nulhatee railway had a fleet of 6 engines, 11 carriages and 18 wagons at the end of year 1878. Four new low sided wagons were constructed during the year. -- **Administration report on state railway 1879-80, page 248**

There were 4 engines, 2 first class carriages, 2 composite carriages, 1 second class, 6 third class carriages, 1 horse box, 15 covered goods wagon and 9 open or low sided wagons in the year 1882-83. Two composite carriages were constructed in the year 1883 in the Saidpur workshop in accordance with Chief Engineer Bengal letter dated 23rd December 1882. -- **Administration report 1882-83**

The rolling-stock of the line consists of 4 locomotives, 14 coaching vehicles, and 28 goods vehicles; the engines weigh 11 tons, and the goods vehicles average 2-1/4 tons in weight and 4 tons carrying capacity. The average mileage run by the engines was 6,330 miles, coal cost Rs. 6.88 per ton, and the consumption was 17"59 lb per engine mile.-- .. Nalhati State Railway--Four-Foot Gauge.-- Report on the Administration of Bengal 1885.

Progress and Administration Report of the State Railways in Bengal 1879 had reported that the engines and vehicles were maintained in fair working order.

Traffic:

It was expected that Nulhatee line would be able to carry rich produce of Rajshye, Moorshidabad and Beerbhoom:

"First, the experimental line of thirty-five miles, from Nulhattee on the East India line to Jeeagunge opposite Berhampore, will be open in two months. It is on the narrow gauge of four feet, but its successors will adopt the uniform larger gauge. From Berhampore another local line will run to Bogwangola on the Ganges, and thus all the rich produce of Rajshye, Moorshedabad and Beerbhoom, emphatically the silk and indigo countries of Bengal, will be drained. But these lines are trifling compared with the long ones sanctioned, or about to be so, in the North-West".

--**Allen's mail 1863**

After 15 days of operation, Mr. Wilson reported that the traffic was steadily increasing and returns for sixteen days, with only one train per day, amounted to Co. Rs. 17,986, say £179; and the expenses for the same time were about Rs. 700, say £70.

"The line has now been open, for a fortnight, and is, I am happy to say, a great success. I enclose you a table of our takings since the opening. The traffic is

steadily increasing, and there is no doubt will more than realise my expectations. At present, until the fencing is completed, Government will only permit us to run one train a-day, but they will soon have to allow us to run another.

The amount of traffic is very great for a beginning, and this is just now the worst season. there is no doubt of our lines in Lucknow paying the dividend I have stated in my report, so that I shall not have exaggerated, as seemed to be thought at the time. The traffic for sixteen days, with only one train per day, amounted to Co. Rs. 17,986, say £179; and the expenses for the same time are about Rs. 700, say £70.” --Nulhattee, Jan. 5, 1864, Mr. J.E.Wilson

The Directors addressed a letter to the Government of India, pointing out that the reason of the traffic, which at one time promised favourably, having fallen off during the last six months of 1864, was, they understood, that the Trunk Railway had not sufficient rolling stock to carry the traffic which was brought to its stations; and that at Nulhattee, as at all other stations between Calcutta and Benares, goods were kept lying for so long a time that the merchants of Moorshedabad and the neighbourhood preferred at present not giving up other means of transit, though greatly inferior to the railway. ---**Allen’s mail 1865**

Mr. Wilson, who has returned to India, wrote, on 17th March 1866, after inspecting the Nulhatee line, that an increase of local traffic would seem to be promising—that is, traffic going to and coming from short distances on the East Indian—were it not for the helpless state of block-up in which the East Indian line is at present As long as this state of block-up on the trunk line of railway continues it is, of course, impossible that any improvement can be looked for in the Nulhatee traffic.

The company had requested government for formation of a bridge of boats across the river Bhagiruttee, with proper approach and daily provision of wagons for the accommodation of the goods traffic:

“The points in connection with it which Mr. Wilson is to bring prominently to the notice of the Government of India are —The formation of a bridge of boats across the river Bhagiruttee, with proper approaches to it, and the provision by the East India Railway of a certain number of wagons daily for the accommodation of the goods traffic ; and should effect be given to these arrangements, it may then be hoped that the traffic on the line will be found to steadily increase. -- Railway Times 1866

The unguaranteed railways, already alluded to, consist of the Indian Branch Railway and the Indian Tramway Company. Neither has made more than moderate progress during the year. A branch from the East Indian Railway at Nulhattee to Azimgunge has been open, but it does not appear to have yet succeeded in withdrawing the traffic from its old channels. The company has, however, commenced operations on the section between Cawnpore and Lucknow, where it cannot fail to command extensive support. ---**Allen’s Mail 1865**

1, 37,998 passengers were carried in year 1878, while in 1877 it was 1, 20,718, first class passengers were 990 and 1024 respectively. Second class passengers were 7068 and 6722 respectively. Number of passengers carried further increased to

156899 in 1879 with 912 persons travelling in first class and 6939 travelling in second class.

Earnings from Goods traffic having increased from Rs 31866 in 1877 to Rs 33452 in year 1878, but it suffered decrease in 1879 with Goods earnings falling to 28622.

Progress and Administration Report of the State Railways in Bengal 1879 had reported that both the passenger and goods traffic had shown marks of improvement.

Administration report of 1880-81 had presented depressed traffic in the section and lack of proactive action by company management.

“To the following reasons may be attributed the falling off in the traffic on the Railway:

That the trade of Azimgunge and districts around has been unusually depressed. That the Railway has to compete with the existing low boat rates. That passengers and goods from and to Dinagepore, Rajshahye district, Ram pur Bauleah, Nattor, and Pubna formerly came to Azimgunge and passed over the Nalhati Railway. Since the opening of the Northern Bengal Railway, the traffic of these districts has been almost entirely tapped by that Railway.

That the silk trade, which at one time was considerable, had greatly decreased, owing to the suspension of many large silk concerns. That the abolition of a terminal charge on through goods has caused a falling off in the receipts. That the introduction of a minimum charge of 8 annas has seriously affected the receipts both for goods and passengers. The local traffic was largely composed of small consignments, which it was the custom of the merchants to take with them in the train. The Railway therefore earned not only the freight of such consignments but also the fare of the accompanying man. Since, however, the introduction of the minimum charge, the merchants object to pay eight annas on small consignments over short distances, the mileage freight of which may only amount to one-fourth of the sum; and the Railway not only loses the freight, but also the passenger's fare. It is therefore proposed to reduce the local minimum charge to two annas.

Besides these causes, no endeavours appear to have been made to increase traffic. Wagons are not promptly supplied, and the merchants are not solicited for traffic; and to the general want of energy and interest in the work apparent throughout the staff must be attributed a large portion of the bad results. A thorough examination into the working of the line is now being carried out”.
--Administration report 1880-81

Financial performance:

The Nulhatee railway started functioning from 21st December 1863 and in first year of operation, gross earnings were 52086 Rs while expenses were 25460 Rs with gain of Rs 26626. Next year gross earnings were Rs 57,507, while expenses were only 36,392 Rs, resulting in a net gain of Rs 21,115.

The half-yearly meeting of this company was held on Friday, the 24th July 1864, at the London Tavern; the Marquis of Tweeddale in the chair. In moving the

adoption of the report, the noble chairman said the company was the first that had undertaken railways in India without a guaranteed rate of interest. The company, therefore, asking for no guarantee, was subject to no Government control, its object being to establish light roads in various parts of India, depending upon their own merits. The Nulhatee branch line, between Calcutta and Benares, which was approved by the late Lord Elgin, was opened for traffic only on the 21st December 1863, and the revenue account up to the 31st March 1864 showed a receipt of £1,650, and an expenditure of £680, the profit being 5 per cent. on the outlay of the capital.

--Allen's mail 1864

Nulhatee Railway was always able to generate positive gain except in 1866 due to high repair expenses. Earnings for next 8 years, till the company was taken over by state in 1872 was in the range of 13 thousand to 44 thousand of Rs.

Average earnings per mile per week in 1872 were 53 Rs while Calcutta and South Eastern railway was earning 55 Rs per week. Percentage return on capital deployed in year 1872 was 8.06% while it was only 0.17% for Calcutta and South Eastern Railway. Percentage return on capital jumped to 11.24% in year 1873 for Nulhatee State Railway, while return on capital was (-)0.04% for Calcutta and South Eastern Railway for the corresponding period. Percentage returns were 10.21% in 1874, 6.97 % in 1875

Return on capital was highest for Nulhatee State Railway amongst all state Railway.

Table	Mile s ope n	Gross earnings Rs	Expens es Rs	Financial Results	
				Gain Rs	Loss Rs
21st December 1863 to 31st December, 1864	27 ¼	52,086	25,460	26,626	
1865 -do-	-do-	57,507	31,392	21,115	
1866 -do-	-do-	52,102	54,787	-	2685
1867 -do-	-do-	63,118	43,432	19,686	
1868 -do-	-do-	81,365	68,024	13,341	
1869 -do-	-do-	84,595	50,454	34,141	
1870 -do-	-do-	86,271	42,077	44,194	
1871 -do-	-do-	77,575	45,219	32,656	

“ In 1866 there was a loss of 268l- in working, but since then there has been a profit of about 3000l. per annum. The line, however, was constructed in such a manner that it could not be maintained in proper order without expenditure considerably in excess of the receipts, and it was estimated that it would require a cost of 14,000l- to complete its requirements and put it in proper repair. In 1869, Government offered to purchase the line and stock for 30,000l-, which offer was subsequently accepted, and the transfer to Government took place in April, 1872.

This line runs across a country where it gets hardly any goods traffic, yet it pays over five per cent. on its cost after paying all expenses. The cost of working is only 9d. per train mile, and it is managed and worked almost by natives of India; the only European on its staff being a mechanical engineer in charge of the locomotive shed.

This line also burns only Indian coal, which costs 21s. 5d. per ton, but the consumption is only 43 lb. per train mile, and in this respect it compares favourably with the Calcutta and South-Eastern. The number of trains run in 1872 was 591, or about one each way per diem, excluding Sundays.--

Engineering: For Innovators in Technology, Manufacturing and ..., Volume 18, 1874

The Nalhati Line earned Rs. 27,901, and thus paid over 10 per cent on its Nalhati Railway capital cost. The working of this line showed cheap management. --
Administrative Report on Indian State Railways 1881

Consulting engineer Report 1885--

"The Consulting Engineer in his periodical inspections continues to report that this line is at present unfit for fast traffic. The Government of India has therefore been addressed with a view to permitting it to be worked at such a speed as may, in the opinion of the Consulting Engineer be consistent with safety; so that the district served may continue to enjoy the benefits of the train service, even at a reduced speed, without the necessity for investing heavy additional capital upon a railway whose gauge is unique and obsolete.

The Nalhati State Railway has hitherto succeeded in more than covering its working expenses, but only at the expense of efficient maintenance. The line was originally purchased from a Company for £30,000; it runs upon a country road, and has hitherto altogether failed to attract to itself any large amount of the goods traffic of the district. The following table exhibits the results of the working of the line since the commencement:—

Table	Receipts . Rs	Expenditure Rs	Difference Rs	Indirect charges (Rs) appertaining to revenue	Net receipt Rs
1872-82			1,61,478	22,062	1,39,426
1882-83	74,054	50,585	23,469	3984	20,235
1883-84	80,623	56,317	24,305	2250	22,075
1884-85	76,375	72,129	4216	3529	717

From the above table it is clear that the very disappointing results of this year's working are due less to a falling off in traffic than to increased expenditure and a reference to the revenue accounts shows that this increased expenditure has been principally incurred upon maintenance. The entire capital cost of the Nalhati State Railway, 27-1/4 miles in length, was Rs. 3,91,403 upon the 31st March 1885. Rupees 43,069 of this amount were for indirect charges, and the whole

was Imperial money, for which the province pays Rs. 14,074 interest for the year 1884-85.

The management of the line continued in the hands of Baboo Ramgotty Mookerjee, who from the 1st July 1884 had charge of this line only, having handed over the Calcutta and South-Eastern State Railway to the manager of the Eastern Bengal State Railway.-- Nalhati State Railway--Four-Foot Gauge.-- Report on the Administration of Bengal 1885 -By Willis's Current notes

Time table and passenger fare:

The journey of 27 miles between Nulhatte to Azimganj, with five intermediate stoppages, would be covered in 2hrs 30 minutes. First class fare between Nulhatte to Azimganj was 2 Rs and 10 annas while second class fare was 14 annas.

Distance. Miles from Nalhati	Names of station	Time A.M.	1st class Rs. an. p	2nd class a. p
	Nalhati	5.0		
4	Takipur	5.21	0 6 0	2 0
8	Nowada	5.44	0 12 0	4 0
12 ½	Bokhara	6.13	1 3 6	6 6
17	Sagardigi	6.39	1 9 6	8 8
21	Shahapur	7.20	1 15 6	10 6
27 ½	Azimganj	7.30	2 10 0	14 0

“Azimganj is a neat town with several good houses of Jain merchants, of which sect a number of families came from Jaipur and Rajputana many years ago. On entering the town from Nalhati, there is on the left a neat villa belonging to Babloo Babu. In Bakali Pati there is also a good House belonging to Kalu Shrimall, and the houses of the brothers Bishn Chand Dodariya and Kandho Singh Dodariya are large and handsome. One room in the station, on the right as you arrive from Nalhati, is fitted up for the accommodation of travellers, and there is a khansaman. The Baghiratht is here 700 ft. broad, and rises in the rains 25 ft., when the current runs 7 m. an hour. The only boats procurable have no covering, and in the burning sun, or in the rains, it may be imagined what the traveller has to suffer, more particularly as the distance from the Ghat on the river's side to the refreshment room is ~ of a m. at least. From the Ghat on the far side to the palace where the Political Agent in charge of the Nuwab's affairs lives”, --Handbook of the Bengal Presidency: With an Account of Calcutta City ..By John Murray (Firm), Edward Backhouse Eastwick

Fares and Rates

All Volunteers proceeding on duty, i. e., when attending shooting matches, drills, &c, are allowed to travel in the next higher class of carriage to that for which they have paid fares on the understanding that officers only are to travel first class with second class tickets, all other ranks second class with third class tickets. A certificate must be produced signed by the Commanding Officer.

Member of mounted Volunteer Corps are proceeding on duty their horses will be conveyed at the reduced rates and conditions conceded to polo ponies in horse-boxes. A certificate must be produced signed by the Commanding Officer.

No refund can be granted on unused second halves of Return Journey Tickets.

Fish, fruit, vegetables, bazar baskets, meat in small quantities, and ice, at half parcel rates, subject to a minimum of 2 annas. The charge will be on the collective weight of each consignment, not on the weight of each basket.

Subject to a maximum charge of one rupee for a parcel not exceeding 5 seers irrespective of distance. The ordinary rule as to fractions of an anna will apply to these rates.

Parcels exceeding forty seers in weight, will be charged at forty seers rate, and extra weight separately as per table.

Bazar and Bread Rates.—these are charged half of the parcel rates, and must be prepaid.

Plants and Shrubs.—Each package including earthen pots and other packing not to exceed one maund in weight, and the gross weight of each consignment not to exceed ten maunds at half parcel rates.

Betal or Pawn leaves by passenger train are charged at third class goods rate.

The Luggage rate per maund from Nalhati to Azimganj is Rs. 0-4-0, subject to the minimum charge and free allowance as on East Indian Railway.

Corpses are charged 6 annas per mile over the Nalhati State Railway.

Birds in hand, or in cages, Rabbits, Monkeys, Puppies or Kittens, and other small animals in cages or baskets at full parcel rates.

Calves, Sheep, Goats, Pigs, &c, consignments of three or less carried in the Guard's Brake-van, each at eight annas for every fifty wiles at owner's risk.
**-- NALHATI STATE RAILWAY.-- Book of Fares, Rates, Rules & Instructions:
For the Conveyance of Passenger ...1884**

Nulhatee to Azimgunge Rail journey by Prince Alfred, Duke of Edinburg in 1870

Duke of Edinburg during his India visit in 1870 had visited Moorshedabad using Nulhatee light railway

The visit of the Duke of Edinburgh to Calcutta was virtually ended on Tuesday by the Galatea ball. There could have been no more fitting close of the fortnight's

festivities, no more princely acknowledgment of a reception which has frequently called forth warm expressions of surprise and satisfaction from his Royal Highness.

The Duke of Edinburgh said farewell to Calcutta on Friday morning. He visited the Maharajah of Burdwan, who gave his Royal Highness a magnificent reception. The party reached their hunting camp at Dewan Seri late on Friday night, using the tramway from Nulhatee to Azimgunge, near Moorshedabad. On Saturday the sport of pig-sticking began. Eighteen gentlemen were present, and twenty-seven elephants were employed to beat the jungle. Three boars were started, and the third enabled the Duke to win his "first spear," after two falls.

--Friend of India, Jan.11, 1870

Traveller's travail:

"The journey from Nalhati to Azimganj is notoriously uncomfortable, the train shakes fearfully. 1st class carriages have no lavatories, and the stations along the line are dirty little villages, where there are no banglas, and no accommodation of any kind. But this is not all; the E. I. Railway train arrives at 10.1 P.M., and the State Railway carriages start at 6 A.M. There is no bedroom at Nalhati, so that you must sleep in the railway carriage if you can get permission to do so. The discomfort is so great, that an illness may probably be incurred. The Indians themselves say, "this is not a railway, but only a wretched tramway." It is absolutely necessary that Government should order a good refreshment-room and 2 sleeping-rooms to be opened at Nalhati, and at Sagardigi, half way to 'Azimganj, a comfortable T. B. should be built, and khansaman be appointed to provide refreshment for travellers.

At Azimganj also, there ought to be a T. B., and a covered boat should be provided to carry passengers across the Ganges, and a T. B. should be built on the Murshidabad side of that river, where carriages could be procured for going to Murshidabad. Then, indeed, the journey might be made with moderate comfort. As it is, the Government have done almost nothing, and the Nuwab Nazim of Murshidabad has done less than nothing. Many princes, for instance the Maharaja of Bhartpur, supply European travellers for one day at least with food and lodging free of expense; but the Nawab of Murshidabad overlooks the traveller altogether. It is also to be observed, that the Nalhati line is managed with such extraordinary carelessness, that complaints are rife of the train being stopped to allow some official connected with it to get down and shoot ducks or deer." :— Handbook of Bengal Presidency ,1882

Valuation and Purchase by State:

THE NULHATEE RAILWAY. —Lieut. Wallace, Officiating Assistant Consulting Engineer, was lately deputed to obtain an approximate valuation of the stock and block of the Indian Branch Railway Company, Nulhatee line, as it now stands, with an adequate depreciation for wear and tear. The cost price is given in the directors' report as £75,813. From the report prepared by Lieutenant Wallace, in communication with Messrs. Long and Good, engineers, it appears that the line has hitherto been worked at a small loss, but large reductions of establishments have recently been effected, and the fixed monthly charges now amount to about Rs. 2,200 only.

The advantages derived by the East Indian Railway from the working of this branch line appear from the statistics given in the report incontestible, and the indirect profits are estimated by Lieutenant Wallace at 43 per cent on a sum of Rs. 7,58,130, which is the actual cost of the branch line.

There also appears every reason to hope for a large increase of the traffic under improved management, as no effort has yet been made to work the line to advantage. The line is shown by Lieutenant Wallace to be in reasonably good order, and likely to work without heavy renewals for at least three years longer, and it has now been suggested that the East Indian Railway Company offer to undertake the supervision of the line (retaining the fixed establishments in the pay of the Indian Branch Railway), and guarantee the shareholders a dividend of 24 per cent. for three years on Rs. 7,58,130 (the cost of line), on the understanding that should the receipts improve to any marked extent the guarantee will be renewed at a proportionately enhanced rate for a further period of five years, if the Indian Branch Railway Company will undertake to effect all necessary repairs prior to the renewal of the agreement. —Indian Daily News and Bengal Hurkaru, April 9, 1867

Epilogue :

Nulhatee line of Indian Branch Railway Company was purchased by the Government in April 1872 and it became Nulhatee Provincial State Railway. Contract between the Secretary of State in Council and the Indian Branch Railway Company dated 2nd August 1867 was signed empowering the company to construct 672 miles of Railway in Oude and Rohilcund. The company after signing the contract changed its name to Oude and Rohilcund Railway Company. Resolution for changing the name was passed on 14th August 1867. Of the Nulhatee Line, not guaranteed, and which will form a separate undertaking, to be called the Nulhatee Railway.

Nulhatee line was opened for traffic 21st December 1863, with the exception of one year there had been gain since the line opened for traffic. The line was sold to the State for £30,000 on the 1st April 1872, and was afterwards worked under the direction of the Consulting Engineer for Guaranteed Railways, Calcutta.

The issue of selling Nulhatee branch to government was discussed during the half-yearly general meeting of this Company was held on Wednesday, June 14, 1871 at the City Terminus Hotel, London:

“The CHAIRMAN then brought forward the question of the Nulhatee line. They had been offered £30,000 for it and refused to accept it. They had offered the line to the Government for £40,000 cash; the line had cost the Company £50,000, and the traffic on it paid rather more than 5 per cent on that outlay. If the Government would extend it across the river to Moorshedabad, seven miles, it would have a good traffic on it. It formed a branch from the Nulhatee station on the East Indian railway. The line was in first rate condition, and was worked by native labour.”- Herapath’s Journal 1871

Aim of the Indian Branch Railway was articulated by the Director Mr. Pender, M.P. in Shareholders’ meeting in 1863, when he said:

They did not profess to compete with existing lines, but to give the country railroads where bullock-tracks only existed. It was well known that in the wet season

the bullocks' feet destroyed the road, and therefore rendered it impassable during the rainy season.

The Company proposed to give the country a cheap road that would not be injured in the wet season, and would be available in all seasons for the conveyance of passengers and goods. Of course, if the traffic became so great as to need it, they could take up their light rails and lay down heavy ones. Having made the first section they could go on.-- **The first ordinary meeting of this Company ,held on Thursday, March 26, 1863 at the London Tavern ;**

“In 1863 a broad gauge line was constructed and opened for traffic by a Calcutta and South-Eastern private company under a Government guarantee Railway between Calcutta and Port Canning, distant 28 miles, and was called the Calcutta and South-Eastern Railway. The cost of this line was heavy. It was made in anticipation of Port Canning attracting shipping and competing with the port of Calcutta; but these anticipations were not realized, few ships called at Port Canning, notwithstanding the advantages offered, and in consequence of the dearth of sweet water and other causes the township had only a short existence as a port. The result was that, after the railway had been opened for traffic, it did not pay its running expenses. In 1868 it was handed over, according to the terms of the agreement made at the time, to the Government of India, and has since been worked at a slight profit.

Under somewhat similar conditions a short line of railway, 4-ft. gauge, 27-1/2 miles in length, made by the Indian Branch Nalhati Railway Company between Nalhati, on the East Indian Railway, 145 miles from Calcutta, and Azimganj on the Bhagirathi affluent of the Ganges, became Government property in 1872.”

The track would be later converted to Broad-Gauge on April 1st 1892, formally becoming part of the East Indian Railway's Sahibganj Loop.

Contract dt. 10th November 1893.-for the incorporation of the following State branches in the EIR :

*-Ghazipur (Dildaraagar to Tarighat) ; Bhadreswar (Bhadreswar junction to the right bank of Hooghly); Mokameh (Moknmeh junction to the Ganges); Digha Ghat (Bankipore Junction to the Ganges at Digha Ghat); Jharia (Barakar to the Jharia coal-fields); 'Toposi colliery (Toposi to Khairahad, Nundi to Panuria and Salanpur to Shamdi); Gaya (Bankipore to Gaya) ; and **Azimganj (Nalhati to Azimganj).**-Administration report 1907*

East Indian Railway operated on the southern side of the Ganges, the Oudh and Rohilkhand Railway operated in the plains of northern India, mostly north of the river. In 1867, the company opened the 5 feet 6 inch wide Broad gauge Kanpur-Lucknow branch line, bringing Lucknow in the Railway map of India. It would later connect Lucknow with Hardoi, Barabanki & Benares and Moradabad to Chandausi & Bareilly.

In 1880 the company was relieved from its obligation under the original contract to make a line of Railway from Buxar to Akbarpur and it was agreed that in lieu thereof the company should construct a bridge over the Ganges at Benares and should form a junction with the East Indian railway at Moghal Sarai. The work was started in 1881 and the Dufferin bridge over the Ganges was opened for traffic on the 1st October 1887. --Administration report 1891-92

The Oudh and Rohilkhand Railway would be later merged into the East Indian Railway on 1st July 1925 culminating a journey that started from Nulhatee six decades earlier.

The experiment would establish that it was possible to construct low -cost feeder lines network, which would tap the hinterland and bring traffic on main lines, and these lines can be operationally viable. Nulhatee line experiment would spawn various State Railways all over the country with MG network. The experiment would also prove that private lines constructed cheaply without guarantee are not able to arrange resources and undertake capital expansion including major repairs.

“A good thing never dies. The original intention was to supply India with a system of railways less expensive and involving less onerous conditions upon the Government than the present system of guarantee. The idea was favoured by Lord Canning and Colonel Yule, his public works secretary, and the construction of light railways was regarded as one of the best things that could be done for India. It was tried, and, as had been stated, did not succeed; but it could not be denied that it had originated the present system of so called State railway in India, constructed on the metre gauge. Therefore, to say the original idea of light railways was a failure was a mistake. Although from the nature of the gauge decided upon for the great trunk lines, the narrow gauge and light railways received their quietus for a time, their own opinion was that inexpensively constructed light lines on the narrow gauge were destined to be means of great advantages and benefit to India.”

—The Railway Times 1877

“The result of all this railway extension on the people of India, as well as on England and on our Government, may be imagined from the statement of Mr. Turnbull, that during the ten years he has been making the East Indian line above ten millions sterling have passed into the hands of labourers and artisans, and the rate of wages has increased fifty per cent. Who shall estimate the results of this process, going on year after year, in enlightening the masses and establishing our rule “

--Friend of India.1863

Bibliography

1. Friend of India 1863
2. The Railway Times 1877
3. NALHATI STATE RAILWAY.-- Book of Fares, Rates, Rules & Instructions: For the Conveyance of Passenger ...1884
4. Handbook of the Bengal Presidency: With an Account of Calcutta City ...By John Murray (Firm),
5. Administrative Report on Indian State Railways1881
6. Report on the Administration of Bengal 1885 -By Willis's Current notes
7. Engineering: For Innovators in Technology, Manufacturing and ..., Volume 18, 1874
8. Allen's Mail 1865
9. The Railway Times 1866
10. Allen's mail 1863
11. Herapath's Journal 1863
12. Progress and Administration Report of the State Railways in Bengal 1879
13. Progress and Administration Report East Indian Railway 1873
14. Oudh Gazette 1865
15. Herapath's Journal 1871
16. The Railway Times 1868
17. Administrative Report on Indian State Railways1885
18. Administrative Report on Indian Railways1883-84
19. Administration report 1891-92
20. Administration report 1880-81
21. Annals of Rural Bengal
22. A history of Murshidabad –Walsh
23. Herapath's Journal 1870
24. The Railway News 1867
25. The Economist 1867
26. Railway intelligence 1867
27. The Parliamentary Papers vol 44,1872
28. Accounts and papers house of commons vol 47,1874
29. Engineering Volume 14,1872
30. Report on the Administration of Bengal 1876
31. 150 years of Indian Railway